



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,954	02/20/2004	Kai Lehmann	MB 386	4795

7590 01/04/2005

KLAUS J. BACH & ASSOCIATES
PATENTS AND TRADEMARKS
4407 TWIN OAKS DRIVE
MURRAYSVILLE, PA 15668

EXAMINER

RIDDLE, KYLE M

ART UNIT	PAPER NUMBER
----------	--------------

3748

DATE MAILED: 01/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/783,954

Applicant(s)

LEHMANN ET AL. *cl*

Examiner

Kyle M. Riddle

Art Unit

3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 6 and 7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 6 and 7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 November 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Response to Amendment

Claim Objections

1. Claim 1 is objected to because of the following informalities: Amendment received 8 November 2004, claim 1, four lines from the bottom of claim, "bearing cover (26)" should read --bearing cover (2b)--. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Satou (U.S. Patent 5,301,639) in view of Uchida (U.S. Patent 6,032,629).

Satou discloses a valve timing control device comprising a camshaft 1 and driven sprocket 2 having their relative rotational positions adjusted with respect to one another (column 7, lines 44-48), a bearing or camshaft sleeve 3 mounted on an end portion of camshaft 1 (column 3, lines 53-55) and covered by housing 11 (column 4, lines 35-38, lines 46-52, and Figures 4 and 5), a valve control timing device accommodated with a housing 11 secured to a cylinder head 9 (column 4, lines 36-39), a hydraulic control valve 17 disposed at a position offset from camshaft 1 (column 6, lines 27-30), the camshaft 1 having an oil passageway 27 for providing pressurized oil to control valve 17 for controlling valve timing (column 9, lines 22-26), valve openings vertically extended and connected below supply oil passages 22, 23, 21' and return or drain

Art Unit: 3748

passage 25 (column 6, lines 66-68 with column 7, lines 1-24, column 10, lines 11-28, and Figures 4 and 5). Satou, however, fails to disclose the control valve mounted in the camshaft bearing.

Uchida teaches a variable valve timing arrangement with variable valve mechanisms to change the phase of the camshaft 24, 25 with the crankshaft (column 4, lines 13-17) and the control valve mounted in the bearing member (column 6, lines 35-37 and Figure 2). It would have been obvious to one having ordinary skill in the art at the time of the invention was made, to have utilized the teaching by Uchida in the valve system of Satou, since the use thereof would have provided an additional mounting technique of the hydraulic control valve in close proximity to the camshaft further reducing leakage and pressure losses.

Response to Arguments

4. Applicant's arguments filed 8 November 2004 have been fully considered but they are not persuasive.

5. Applicant's cite on page 6, second to last paragraph, that the Uchida reference includes control valves mounted in the bearings and the inclusion of such an arrangement by combining claim 4 (applicant referred to incorrect combination in Remarks) into independent claim 1 is novel over the cited references. However, examiner previously rejected claim 4 and not being patentable over Satou in view of Uchida, where Uchida clearly teaches mounted control valves in bearings. Applicant has made no argument that the newly amended claims are not obvious over the combination of these references.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 3748

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and consists of 1 patent.

- Suzuki (U.S. Patent 6,289,861) discloses a variable valve control system with the on/off valve mounted in camshaft bearings.

Communication

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyle M. Riddle whose telephone number is (571) 272-4864. The examiner can normally be reached on M-F (07:30-5:00) Second Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3748

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kyle M. Riddle
Examiner
Art Unit 3748

kmr



THOMAS DENION
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700